

#### REMARKS

Claim 1 has been amended. Thus, claims 1-18 and 23-32 are pending in the present application. Support for the amendment to claim 1 may be found throughout the specification. Thus, no new matter has been added. Reconsideration and withdrawal of the present rejections in view of the amendments and comments presented herein are respectfully requested.

#### Rejection under 35 U.S.C. § 102(b)

The Examiner maintained the rejection of Claims 1, 6, 7, 9, 10, 13-16 and 18 as allegedly being anticipated by Klingenberg et al. (DD 156,714 A, referred to as "R1"). The Examiner contends that "although there is no explicit disclosure of preventing or retarding the staling during the baking process of the bakery products, given that R1 discloses method and improver identical to that presently claimed, it is clear that the method and improver would inherently prevent or retard staling during the baking process of the bakery products."

As noted in Applicants' previous response, according to M.P.E.P. § 2112 IV, to support a rejection based on inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the characteristic alleged to be inherent by the Examiner necessarily flows from the teachings of the applied prior art. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). (emphasis added) "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." (emphasis added) *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). (emphasis added).

Claim 1 as amended recites a method for the prevention or retarding of staling during the baking process of bakery products which comprises the step of adding an amount of at least one intermediate thermostable and/or thermostable serine protease to a dough prior to baking, wherein said amount is effective to prevent or retard staling in said bakery products.

Klingenberg discloses that Thermitase, a serine protease, is able to break down gluten in bakery products. As acknowledged by the Examiner, Klingenberg is silent regarding the ability of this enzyme to prevent or retard staling in bakery products. Klingenberg states that "Thermitase is used for gluten breakdown in the production of processed foodstuff, waffles, and bakery products...", but neither teaches nor suggests that the enzyme is added to the dough prior to baking as recited in present claim 1, or that it has any effect whatsoever on staling. As set forth in paragraph 5 of the enclosed Rule 132 Declaration of Thierry Dauvrin, enzymes can be added at other points in the preparation of baked products, not just to the dough prior to baking. The Declaration at paragraph 8 states that the Thermitase could be used in the process of preparing a baked product without being added to the dough to be baked, and then describes a gluten hydrolysate ("Solpro 300") obtained by protease treatment of gluten for protein enrichment of flours (Declaration, paragraph 8). Although the Solpro 300 protease is added to a component of the bakery product (the flour), it is not added to the dough prior to baking and, in fact, would not be present in the dough since it would be denatured by pasteurization. Based on these statements, it cannot necessarily be inferred from Klingenberg that the Thermitase is added to the dough to be baked, since a gluten hydrolyzing enzyme can be used in the process of preparing a baked product without necessarily being added to the dough to be baked (Declaration, paragraph 8). Thus, the Examiner has not proven that the addition of an intermediate thermostable and/or thermostable serine protease to the dough to be baked for preventing or retarding staling of a bakery product necessarily flows from the teachings of Klingenberg. Thus, this reference does not inherently anticipate the present claims. Since the improver composition (Claims 10-18 and 28-30) is added to the dough (Declaration, paragraph 9), these claims are also not anticipated by Klingenberg.

In view of the comments presented above, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(b).

Rejections under 35 U.S.C. § 103(a)

Claims 3, 4, 8, 12, 17, 25, 27, 30 and 31 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Klingenberg et al. in view of Oleson et al. (US 6,110,508)

Claims 7 and 16 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Klingenberg et al. in view of Terada et al. (US 5,124,261) and Chernoglazov et al. (RU 2,177,799).

Claims 2, 5, 11, 23, 24, 26, 28 and 29 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Klingenberg et al. in view of Stetter (US 5,714,373)

In order for a claim to be rendered obvious, each element of the claim must be disclosed within the cited references. As discussed above, Klingenberg et al. neither disclose nor suggest that at least thermostable serine protease is added to dough to be baked, or that the enzyme prevents or retards staling of bakery products. None of the secondary references remedy the defect in the teaching of Klingenberg et al., namely adding an effective prevention or retarding of staling amount of at least one intermediate thermostable and/or thermostable serine protease to dough to be baked.

In addition, it is unexpected that the claimed method would prevent or retard staling of bakery products. As noted in the Declaration at paragraph 10, other gluten-hydrolyzing enzymes are known (for example, papain and thermolysin), and these are not able to retard staling when added to bakery products. Based on the inability of these enzymes to retard staling, it would not be expected that serine proteases would be able to retard staling. However, thermostable serine proteases unexpectedly result in an anti-staling effect in bakery products when added to the dough to be baked. These unexpected results are neither disclosed nor suggested by any of the cited references, either alone or in combination, could not have been predicted based on any of the cited references, and would effectively rebut an alleged case of *prima facie* obviousness if one were present.

In view of the comments presented above, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a)

*No Disclaimers or Disavowals*

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, the Applicants are not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this

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application. The Applicants reserve the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that the Applicants have made any disclaimers or disavowals of any subject matter supported by the present application.

### CONCLUSION

Applicants have endeavored to address all of the Examiner's concerns as expressed in the outstanding Office Action. Accordingly, amendments to the claims, the reasons therefor, and arguments in support of the patentability of the pending claim set are presented above. In light of the above amendments and remarks, reconsideration and withdrawal of the outstanding rejections is specifically requested. If the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, the Examiner is respectfully requested to initiate the same with the undersigned.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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